



Food and Drug Administration  
10903 New Hampshire Avenue  
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Silver Spring, MD 20993-0002

December 10, 2014

Ortho Development Corporation  
Mr. Mike Ensign  
Director of Quality Assurance and Regulatory Affairs  
12187 South Business Park Drive  
Draper, Utah 84020

Re: K142146  
Trade/Device Name: Ibis™ Pedicle Screw System  
Regulation Number: 21 CFR 888.3070  
Regulation Name: Pedicle screw spinal system  
Regulatory Class: Class III  
Product Code: NKB, MNI, MNH  
Dated: November 4, 2014  
Received: November 5, 2014

Dear Mr. Ensign:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

Vincent J. Devlin -S

for  
Mark N. Melkerson  
Director  
Division of Orthopedic Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known)

K142146

Device Name

Ibis™ Pedicle Screw System

Indications for Use (Describe)

The Ibis™ Pedicle Screw System is intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion using autograft or allograft. This system is intended for posterior, noncervical pedicle fixation of the thoracic, lumbar, and sacral/ilium spine (T1 – S1/Ilium) for the following indications:

- 1) Degenerative disc disease (DDD) (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies)
- 2) Degenerative Spondylolisthesis with objective evidence of neurologic impairment
- 3) Trauma (fracture or dislocation)
- 4) Spinal tumor
- 5) Failed previous fusion (pseudarthrosis)
- 6) Spinal stenosis
- 7) Spinal deformities or curvatures such as scoliosis, kyphosis, or lordosis

Type of Use (Select one or both, as applicable)

☒ Prescription Use (Part 21 CFR 801 Subpart D)

☐ Over-The-Counter Use (21 CFR 801 Subpart C)

**PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON A SEPARATE PAGE IF NEEDED.**

### FOR FDA USE ONLY

Concurrence of Center for Devices and Radiological Health (CDRH) (Signature)

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## Section 5

### 510(K) Summary

**NAME OF SPONSOR:** Ortho Development Corporation  
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Draper, Utah 84020

**510(k) CONTACT:** Mike Ensign  
Director of Quality Assurance and Regulatory Affairs  
Telephone: (801) 553-9991  
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Email: [mensign@odev.com](mailto:mensign@odev.com)

**DATE PREPARED:** December 10, 2014

**PROPRIETARY NAME:** Ibis™ Pedicle Screw System

**COMMON NAME:** Pedicle Screw Spinal System

**CLASSIFICATION:** 21 CFR 888.3070 Pedicle screw spinal system

**DEVICE PRODUCT CODES:** NKB  
MNH  
MNI

**CLASS:** III

**PRIMARY PREDICATE DEVICE:** Pagoda™ Pedicle Screw System (K131785)  
*Ortho Development Corporation*

**ADDITIONAL PREDICATE DEVICES:** Tiger Spine System (K113058)  
*CoreLink, LLC*

Pangea System (K052123)  
*Synthes Spine*

## Description

The Ibis™ Pedicle Screw System consists of bulletted rods; cannulated polyaxial, monoaxial, and extended tab screws; and set screws; which can be variously assembled to provide immobilization of the thoracolumbar and lumbosacral spine. The Ibis™ Pedicle Screw System maintains compatibility with the Pagoda™ Pedicle Screw System. All components are made from Titanium Alloy (Ti6Al4V).

## Indications

The Ibis™ Pedicle Screw System is intended to provide immobilization and stabilization of spinal segments in skeletally mature patients as an adjunct to fusion using autograft or allograft. This system is intended for posterior, noncervical pedicle fixation of the thoracic, lumbar, and sacral/iliac spine (T1 – S1/Ilium) for the following indications:

- 1) Degenerative disc disease (DDD) (defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies)
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- 5) Failed previous fusion (pseudarthrosis)
- 6) Spinal stenosis
- 7) Spinal deformities or curvatures such as scoliosis, kyphosis, or lordosis

## Summary of Technological Characteristics

The Ibis™ Pedicle Screw System components incorporate the same technological characteristics as the predicate devices to stabilize and immobilize the thoracolumbar and lumbosacral spine as an adjunct to fusion. At a high level, the subject and predicate devices are based on the following same technological elements:

- Components are manufactured from Titanium Alloy (Ti6Al4V)
- Polyaxial and monoaxial pedicle screws are used to attach to the vertebrae
- Pedicle screws are cannulated to facilitate placement over a k-wire
- Same pedicle screw thread form
- Same locking mechanism used to rigidly fix the polyaxial pedicle screws to the rod
- Extended tab pedicle screws are used to aid in rod reduction
- Use of instrumentation to aid in percutaneous placement of pedicle screws and rods

## Summary of Non-Clinical Testing

- Static and dynamic compression testing per ASTM F1717
- Static torsion testing per ASTM F1717

## Conclusions

Substantial equivalence of the Ibis™ Pedicle Screw System to previously cleared predicate devices has been demonstrated based upon similarities in intended use, design, materials, manufacturing methods, packaging, and mechanical test results.